PROJECT NOTIFICATION

Ref. No.: 20-AG-31-GS-OSM-A-PN2100028-001

Date of Issue	29 April 2021
Project Code	20-AG-31-GS-OSM-A
Title	Multicountry Observational Study Mission on Advanced Food Safety Management
Timing and Duration	28–30 June 2021 (three days)
Hosting Country(ies)	APO Secretariat
Modality	Digital Multicountry
Implementing Organization(s)	APO Secretariat
Participating Country(ies)	All Member Countries
Overseas Participants	38
Local Participants	Not Applicable
Qualifications of Participants	Policymakers, government officials, executives of food business associations, food business managers, food safety managers, academics, and consultants on food businesses or food safety
Nomination of Participants	All nominations must be submitted through National Productivity Organizations of member countries
Closing Date for Nominations	28 May 2021

1. Objectives

a. Introduce best practices of advanced food safety management technologies.

b. Facilitate the adoption of advanced food safety management technologies.

c. Promote the productivity of agrifood industries with an emphasis on food safety.

2. Background

Unsafe food is a threat to human health and economies globally. According to a 2021 FAO report, an estimated 600 million cases of foodborne illness occur annually. Therefore, ensuring food safety is a public health priority and an essential step to achieving food security. Technologies such as the Internet of Things and sensors are improving food safety management, thereby reducing food-related incidents.

The hazard analysis and critical control point (HACCP) methodology is an internationally accepted, systematic, preventive approach to food safety. Observance of HACCP is often required from business partners in food transactions. HACCP methods require the collection and recording of data on food safety management, which are often assigned as manual staff tasks, thus easily resulting in human error.

Those mistakes can be solved by advanced technologies. For example, some data required by HACCP, such as refrigeration temperatures, can be automatically monitored and recorded by sensors. Such sensors and systems reduce staff workloads and the risk of error in HACCP management. Sensor technologies not only facilitate HACCP but also contribute to identifying foreign substances through image analysis, and such contaminants can then be eliminated from food manufacturing processes.

Blockchain technology automatically records information on every step in food supply chains, sharing it among stakeholders in real-time. It makes food supply chains more transparent and enables faster traceability, allowing quicker identification of the causes of foodborne illness and contamination. Another advanced technology is next-generation sequencing (NGS), a form of DNA analysis that quickly identifies bacterial species causing food poisoning outbreaks. Thanks to NGS, food manufacturers can quickly determine the cause of contamination, solve the problems speedily, and minimize food poisoning incidents.

This study mission will introduce advanced food safety management technologies in Japan and promote their applications in member countries. Food safety management using such technologies will strengthen consumers' trust in food products, therefore adding value and ultimately making the agrifood sector more productive and competitive. Developing productive, safe food value chains is a core area of engagement of the APO, and smart transformation is a key result area of the APO Vision 2025.

3. Scope, Methodology, and Certificate of Attendance

The duration of each day's sessions will be around three hours comprising presentations by experts, group discussions, and other relevant learning methods. The indicative topics of the presentations are:

Day 1:
- Data Recording Systems for HACCP.
- Data Collection Sensors for HACCP.

Day 2:
- Identification and Elimination of Foreign Substances from Food Manufacturing Processes.
- Blockchain Technology for Traceability of Food.

Day 3:
- NGS to Identify Bacterial Species.

The detailed program and list of speakers will be provided two weeks prior to the sessions with announcement of the names of the selected participants.

The participants are required to attend all sessions. This full participation is a prerequisite for receiving the APO certificate of attendance.

4. Financial Arrangements

The APO will meet the assignment costs for overseas and local resource persons, and for a virtual site visit(s), either broadcast live or recorded as applicable.

5. Implementation Procedures

Please refer to the implementation procedures for APO digital multicountry projects circulated with this document.

Dr. AKP Mochtan
Secretary-General